UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,080	02/15/2001	Stephen P.W. Draper	5543-00301/EBM	3076

7590   06/16/2004

ERIC B. MEYERTONS
CONLEY, ROSE & TAYON, P.C.
P.O. BOX 398
AUSTIN, TX 78767-0398

EXAMINER
YUAN, ALMARI ROMERO

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 August 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-41</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-41</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>2/15/01</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4,5</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

DETAILED ACTION

1.   This action is responsive to communications: Application filed on 2/15/01 and

Information Disclosure Statements filed on 8/04/03 and 8/08/03.

2.   Claims 1-41 are pending in the case. Claims 1, 14 and 28 are independent claims

Information Disclosure Statement

3.   The references listed in the Information Disclosure Statements filed on 8/04/03 and

8/08/03 have been considered.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

5.   **Claims 1-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Bittinger et al. (USPN 5,859,971 – filed 02/1996) in view of Balcha et al. (USPN 6,233,589

B1 – filed on 07/1998).

Regarding independent claims 1, 14, and 28 and (dependent claims 2, 12-13, 15, 26-27, 29,

and 40-41),

Bittinger discloses:

A method of reducing a size of data difference representations, the method comprising:

Bittinger discloses "identifying an original version of an input data stream in an original

form and identifying an updated version of the input data stream in the original form", on col. 3,

lines 28-67 and col. 4, lines 39-67 teaches determining if the received data stream is identical to

the cache entry and determining if the received data stream is different from the cache entry to

create a plurality of difference data sets);

Bittinger discloses "dividing the original form of the original version of the input data

stream into one or more separate original version output streams through the use of a pre-

processor form and dividing the original form of the updated version of the input data stream into

one or more separate updated version output streams through the use of a pre-processor form",

on col. 27, lines 44-64 teaches the data stream may be demultiplexed to create a plurality of

HTTP data stream); and

produce data difference representations (Bittinger on col. 3, lines 54-58 teaches the

difference data is sent to the second d computer over the external communication link and the

difference data transmitted over the external communication link sent by the client computer is

acquired from the external communication link and on col. 4, lines 39-46 teaches archival

difference data).

However, Bittinger does not explicitly disclose "differencing each of the one or more

separate updated version output data streams with a corresponding original version output data

stream".

Balcha discloses "differencing each of the one or more separate updated version output

data streams with a corresponding original version output data stream", on col. 8, line 64 – col. 9,

lines 51 teaches differencing mechanism between unmodified stream (original) and modified

stream (updated).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified Balcha into Bittinger to provide a way to difference

between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the

differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce

network traffic.

Regarding dependent claims 3, 17, and 30, Bittinger discloses:

reconstructing the one or more separate updated version output data streams from the

data difference representations and the original version output data streams (Bittinger on col. 3,

lines 48-67 teaches reconstructed data stream corresponding to the intercepted response from

data difference between the intercepted response and server base form); and

combining the one or more separate updated version output data streams into the original

form of the updated version of the input data stream through the user of a post-processor

(Bittinger on col. 4, lines 1-15 teaches combining the sever base form received over the link with

the difference data received over the link to create a data stream).

Regarding dependent claims 4, 18, and 31, Bittinger discloses:

wherein the original form of the original version of the input data stream is empty

(Bittinger on col. 10, lines 55-59 teaches empties from the temporary storage the HTTP data

stream received by the web server).

Regarding dependent claims 5, 19, and 32, Balcha discloses:

decompression algorithms (Balcha on col. 2, line 28 teaches compression/decompression

algorithms).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified Balcha into Bittinger to provide a way to difference

between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the

differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce

network traffic.

Regarding dependent claims 6, 20, and 33, Bittinger discloses:

separate volatile components of the input data stream from less volatile components

(Bittinger on col. 10, lines 39-59 teaches the received data stream is temporarily stored to

interrogates components of the data stream).

Regarding dependent claims 7, 21, and 34, Bittinger discloses:

the input data stream is executable code (Bittinger see Abstract teaches the data stream is

executed by the first application).

Regarding dependent claims 8, 22, and 35, Bittinger discloses:

branch targets (Bittinger on 10, lines 39-59 teaches interrogating the received HTTP data

stream).

Regarding dependent claims 9, 23, and 36, Balcha discloses:

data address (Balcha on col. 9, lines 15-51 teaches base address of the stream).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified Balcha into Bittinger to provide a way to difference

between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the

differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce

network traffic.

Regarding dependent claims 10, 24, and 37, Balcha discloses:

instruction code (Balcha on col. 9, lines 40-45 teaches byte codes).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified Balcha into Bittinger to provide a way to difference

between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the

differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce

network traffic.

Regarding dependent claims 11, 25, and 38, Balcha discloses:

immediate data (Balcha on col. 9, lines 5-11 shows data within two different streams).

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to have modified Balcha into Bittinger to provide a way to difference

between an unmodified stream and a modified stream, as taught by Balcha, incorporated into the

differencing system of Bittinger, in order to prevent to copy the entire base file and to reduce

network traffic.

Regarding dependent claim 16, Bittinger does disclose pre-processor is located in the first

computer system and post-processor is located in the second computer system (See Figure 2).

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

USPN 6,003,087 – Housel, III et al. - filed on 10/1997

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Almari Yuan whose telephone number is 703-305-5945. The

examiner can normally be reached on Mondays - Fridays (8:30am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Joseph Feild, can be reached on 703-305-9792. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AY
June 12, 2004

SANJIV SHAH
PRIMARY EXAMINER